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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,106	12/30/2005	Juhani Aspola	0365-0660PUS1	4562
2292	7590	11/27/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LE, TOAN M	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/563,106	Applicant(s) ASPOLA ET AL.	
	Examiner Toan M. Le	Art Unit 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/30/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9 and 13-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The method claims do not produce a tangible result. It is unclear how the result is being displayed, stored, or used in any tangible manner. In order to overcome the rejection, claim language should be added that includes displaying, storing or conveying used in tangible result. To view the new guidelines for 35 U.S.C. 101 please view the following OG notice.

<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>

### ***Claim Objections***

Claim 9 recites the limitation "the wind velocity" in line 10. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 4, 6, 8-9, and 14-15, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 8, and 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Caron (US Patent No. 5,125,268).

Referring to claim 1, Caron disclose a method in connection with a measuring device detecting hydrometeors, in which method

the mechanical impulses of hydrometeors falling on a detection surface are measured, characterized (col. 3, lines 32-41) in that

part of the measuring device (1) is used to perform a continuous measurement, in order to define a threshold value for an impulse (col. 3, lines 42-52; col. 4, lines 6-29),

only after the threshold value is exceeded is the final part (2) of the measuring apparatus excited for measuring operations, in order to minimize the power consumption of the apparatus (col. 3, lines 65-68 to col. 4, lines 1-29), and

mechanical disturbances are filtered out of the signal during processing, on the basis of one or more characteristic features of a hydrometeor signal (col. 3, lines 65-68 to col. 4, lines 1-29; figure 1).

As to claim 2, Caron disclose a method in connection with a measuring device detecting hydrometeors, characterized in that the final part (2) of the measuring apparatus is returned to an inactive state immediately after a measurement (col. 3, lines 65-68 to col. 4, lines 1-29).

Referring to claim 3, Caron disclose a method in connection with a measuring device detecting hydrometeors, characterized in that pulse-specific measurement data is recorded (4) in the initial part (1) of the measuring apparatus, so that the final part can read it after excitation (col. 3, lines 42-52; col. 4, lines 6-29).

As to claim 4, Caron disclose a method in connection with a measuring device detecting hydrometeors, in which, in a first time window (10) after the definition of the threshold value, a first parameter of the impulse, such as the amplitude or rate of change of the pulse, is defined, characterized in that, in a second, later time window (11), the same parameter is defined from the impulse and the first and second time-window parameters are compared with each other, in order to eliminate spurious signals (col. 3, lines 42-52; col. 4, lines 6-29).

Referring to claim 6, Caron discloses a method for measuring hydrometeors, in which method the mechanical impulses of hydrometeors falling on a detection surface, and which exceed a predefined threshold value, are measured, in which case a first parameter such as amplitude or the rate of change of the pulse is defined in a first time window after the definition of the threshold value, characterized in that, in a second, later time window (11), the same parameter is defined from the impulse and the first and second time-window parameters are compared with each other, in order to eliminate spurious signals (col. 3, lines 32-68 to col. 4, lines 1-29).

As to claim 8, Caron discloses a method for measuring hydrometeors, in which method the mechanical impulses of hydrometeors falling on a detection surface, and which exceed a predefined threshold value, are measured (col. 4, lines 6-29),

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the initiation of the measurement is triggered in connection with pulses exceeding the threshold value (col. 3, lines 32-42),

in connection with triggering, at least one initial parameter, such as amplitude or the rate of change of the pulse, is defined from the impulse,

characterized in that, after the first measurement, the time is measured which elapses before the parameter has reached a predefined value relative to the initial value of the parameter, and this time is used as a characteristic parameter in filtering (col. 4, lines 6-29).

Referring to claim 10, Caron discloses a measuring device for detecting hydrometeors, which includes

a detector part (figure 1), which, in turn, includes

a detection element 42 (figure 1), for detecting impacts caused by hydrometeors,

an amplifier circuit, for amplifying the output signal of the detection element,

a limit-value circuit 431 (figure 1), for triggering the measurement of impulses exceeding a specific signal level, and

a processor part 433 (figure 1) for processing the triggered signals, characterized in that

the detector part is arranged to perform continual measurement, in order to define the threshold value of the impulse,

the processor part is arranged to be excited to measurement operations only when the threshold value is exceeded, in order to minimize the power consumption of the measuring apparatus, and that

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the device includes means for filtering out mechanical disturbances of the signal during processing, on the basis of one or more characteristic features of a hydrometeor signal (col. 3, lines 32-68 to col. 4, lines 1-29).

As to claim 11, Caron discloses an apparatus according to claim 10, characterized in that the processor part (2) of the measuring apparatus is arranged to return to an inactive state immediately after measurement (col. 3, lines 65-68 to col. 4, lines 1-29).

Referring to claim 12, Caron discloses an apparatus according to claim 10, characterized in that the detector part includes memory means 434 (figure 1) for recording pulse-specific measurement data, which the processor part can read after excitation (col. 4, lines 6-23).

Referring to claim 13, Caron disclose a method in connection with a measuring device detecting hydrometeors, characterized in that pulse-specific measurement data is recorded (4) in the initial part (1) of the measuring apparatus, so that the final part can read it after excitation (col. 3, lines 42-52; col. 4, lines 6-29).

As to claim 14, Caron disclose a method in connection with a measuring device detecting hydrometeors, in which, in a first time window (10) after the definition of the threshold value, a first parameter of the impulse, such as the amplitude or rate of change of the pulse, is defined, characterized in that, in a second, later time window (11), the same parameter is defined from the impulse and the first and second time-window parameters are compared with each other, in order to eliminate spurious signals (col. 3, lines 42-52; col. 4, lines 6-29).

Referring to claim 15, Caron disclose a method in connection with a measuring device detecting hydrometeors, in which, in a first time window (10) after the definition of the threshold value, a first parameter of the impulse, such as the amplitude or rate of change of the

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pulse, is defined, characterized in that, in a second, later time window (11), the same parameter is defined from the impulse and the first and second time-window parameters are compared with each other, in order to eliminate spurious signals (col. 3, lines 42-52; col. 4, lines 6-29).

As to claim 16, Caron discloses an apparatus according to claim 11, characterized in that the detector part includes memory means 434 (figure 1) for recording pulse-specific measurement data, which the processor part can read after excitation (col. 4, lines 6-23).

***Allowable Subject Matter***

Claims 5 and 7 are objected to as being dependent upon a rejected base claims 1 and 6, respectively, and 101 rejection, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reason for allowance of claims 5 and 7 is the inclusion of the ratio between the first and second windows is created as the limit value for a spurious signal.

***Allowable Subject Matter***

Claim 9 is rejected to as under 101 rejection, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims to overcome 101 rejection.

The reason for allowance of claim 9 is the inclusion of the triggering level of the hydrometeor-signal detection circuit is adjusted on the basis of the wind velocity, in such a way that the amplitude of spurious signals caused by the wind remains below the triggering level.

***Conclusion***

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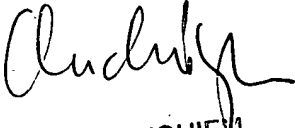
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M. Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Toan Le

November 17, 2006

  
MICHAEL NGHIEM  
PRIMARY EXAMINER